

REMARKS

Claims 1-35 are pending in this application. By this Amendment, claims 3-11, 15-18, 20, 24, 26 and 32-35 are amended. Claims 1, 8, 18, 24 and 32-35 are independent.

Allowable Subject Matter

Applicants appreciate the indication of allowable subject matter in claims 12 and 13. However, it is respectfully submitted that claims 1-11 and 14-35 are also allowable in view of the foregoing amendments and following remarks.

Claim Rejections Under 35 U.S.C. § 112

Claim 9 stands rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps which amounts to a gap between the steps. The rejection is respectfully traversed.

In the Office Action, the Examiner indicates that the step of “forming a phase-shifted first diversity-encoded signal in a phase-shifted second diversity-encoded signal” is required as an essential step. However, Applicants respectfully submit that the phase-shifted signals are internally processed from the amplified first and second diversity-encoded signals, and thus not an essential step in the amplified diversity-encoded signals. Nonetheless, claim 9 has been amended as suggested by the Examiner and to obviate the rejection under 35 U.S.C. § 112, second paragraph. Likewise, claims 10, 11, 23, 33 have also been amended to include the step of forming the phase-shifted signals. Further, it should be noted that the amendments to claims 9-11, 23 and 33 are non-narrowing amendments, made for clarifying purposes only and not to overcome any prior art or for any other statutory considerations.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, second paragraph.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-8, 14-22 and 24-35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dajer et al. (hereinafter “Dajer”), USP 6,539,209 in view of Winters, USP 5,675,285. The rejection is respectfully traversed.

Foremost, it is noted that claims 9-11 and 23 have not been rejected under art. Thus, Applicants have assumed that these claims contain allowable subject matter. However, as it will become evident to the Examiner, these claims have not been rewritten in independent form to include all of the features of their respective base claims, and any intervening claims, as Applicants respectfully submit that the independent claims of the present application are allowable as they now stand.

Dajer and Winters, individually or in combination, fail to disclose or suggest a first signal to be transmitted using transmit diversity and a second signal to be transmitted without using transmit diversity, and sharing the amplification of the at least first and second diversity-encoded signals between at least two amplifiers (emphasis added), as recited in claim 1, and similarly recited in claims 8, 18, 24 and 32-35.

Although Dajer discloses a base station that supports a non-diversity transmission of a first digital signal type and a diversity transmission of a second digital signal type (Abstract), it is respectfully submitted that Dajer fails to disclose or suggest the step of sharing the amplification of the signals between at least two amplifiers. That is, Dajer merely discloses a primary transmitter

arrangement 20 having separate signal branches associated with the corresponding different sectors (Fig. 1B) such that the three different sectors are designated in the alpha sector, beta sector and gamma sector coupled to a first alpha 95, a first beta antenna 97 and a first gamma antenna 99, respectively, of a first set 28 of antennas (col. 4, lines 19-34). Dajer also discloses a secondary transmitter arrangement 22 having a similar structure as the first transmitter arrangement 20. Accordingly, the signal branches leading to the respective antennas in transmitters 20, 22 are completely separate and independent from each other, and thus fails to disclose or suggest sharing the amplification of the at least first and second diversity-encoded signals between at least two amplifiers, as recited in claim 1 and similarly recited in claims 8, 18, 24 and 32-35.

Further, the Examiner states in the Office Action, on page 4 that “Dajer et al. disclose a Code-Diversion, Multiple-Access Base Station [h]aving [t]ransmit [d]iversity which teaches all of the claim subject matter “sharing the amplification... between the at least two amplifiers” in claim 1”. However, after thorough examination of the Dajer reference, Applicants submit that Dajer fails to disclose the step of “sharing the amplification of at least two amplifiers”, since the Examiner has failed to expressly point out where the ‘sharing step’ is taught in Dajer.

With regards to the Winters reference, the Office Action admits, on page 4 that Dajer does not teach or suggest all of the features of claim 1, particularly the step of sharing the amplification of the non-transmit diversity signal between at least two amplifiers. However, the Examiner attempts to overcome the admitted deficiency of Dajer by arguing that Winters teaches the step of sharing the amplification of the non-transmit diversity signal between at least two amplifiers. However, the process of Winters is completely different from the process of the claimed invention. In particular, Winters only discloses amplifying a plurality of base band input signals using a plurality of amplifiers

through a Butler matrix. However, it is respectfully submitted that the amplification of the signals in Winters are transmitted over a diversity transmission. In other words, Winters discloses transmitting the signals using transmit diversity, whereas the Applicants' invention transmits a first signal using transmit diversity and a second signal without using transmit diversity, as recited in independent claims 1, 8, 18, 24 and 32-35.

Further, one of ordinary skill in the art would not have been motivated to combine the teachings of Winters with the teachings of Dajer with any expectations of success, since the signals in Winters cannot be utilized in a non-diversity transmission. Accordingly, if the alleged modification or combination of the prior arts would change the principle of operation of the prior art invention, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). Further, nowhere in Winters is there any motivation to modify the disclosure of Dajer in the manner asserted by the Office Action. In the absence of any motivation to do so, one of ordinary skill in the art would not have combined the references and then modified the resulting combination as asserted in the Office Action to obtain the claimed invention.

For at least these reasons, Applicants respectfully submit that Dajer and Winters, individually or in combination fail to disclose or render obvious the features recited in independent claims 1, 8, 18, 24 and 32-35. Claims 2-7, 14-17, 19-22 and 25-31, which depend from the respective independent claims are likewise distinguished over the applied art for at least the reasons discussed, as well as for the additional features they recite. Reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION

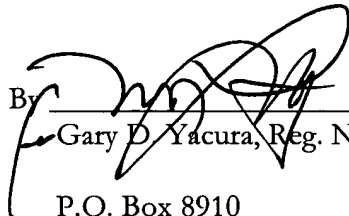
Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-35 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at (703) 668-8000 in Washington D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By  45,274

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